MODIFIED ALDRETE SCORE

Keywords:	Modified Aldrete Score: Criteria
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Question

A 5-year-old boy is in the post-anesthesia care unit (PACU) after undergoing tonsillectomy and adenoidectomy. Which of the following assessments is included in the Modified Aldrete Score to determine his readiness for discharge?

- A. Nausea and vomiting
- B. Pain control
- C. Level of consciousness
- D. Ability to tolerate oral intake

Key Points

- Multiple scoring systems have been developed to assess patient readiness for PACU discharge.
- The Modified Aldrete Score assesses patient activity, respiration, blood pressure, consciousness, and color.

Postanesthetic Care Unit (PACU)

The postanesthetic recovery period is a time of high risk for pediatric patients. According to the Pediatric Perioperative Cardiac Arrest (POCA) Registry, 19% of perioperative arrests occurred during emergence, transport, or recovery, and 50% of arrests in the postoperative period were due to respiratory causes¹. Oxygen desaturation from upper airway obstruction, atelectasis, croup, and laryngospasm are common postoperative respiratory complications. Nausea, vomiting, temperature instability, agitation, cardiovascular instability, metabolic and neurologic disturbances, and postoperative pain must also be closely evaluated and treated in the PACU².

Discharge from the PACU

With more pediatric cases being scheduled on an both an inpatient and outpatient basis, careful and efficient assessment of discharge readiness is important. In order to facilitate this, several scoring systems have been proposed. The Modified Aldrete Score assesses patient activity, respiration, blood pressure, consciousness, and color. A score \geq 9 is required for discharge from the PACU (see Table 1)³. The Postanesthetic Recovery Score assesses consciousness, airway, and movement². The Postanesthesia Discharge Scoring System (PADS) determines home-readiness, and evaluates vital signs, activity level, nausea and vomiting, pain, and surgical bleeding⁴. In addition to these scoring systems, vital signs are also monitored⁴.

Prior to discharge, each patient should be assessed and examined by an anesthesia provider to ensure patient safety before transfer to the intensive care unit, inpatient floor, or home with parents/guardians.

Table 1 Modified Aldrete Score³

Criteria	Characteristics	Points
Activity	Able to move 4 extremities	2
	Able to move 2 extremities	1
	Unable to move extremities	0
Respiration	Able to breathe deeply and cough freely	2
	Dyspnea or limited breathing	1
	Apneic	0
Circulation	BP +/- 20% of pre-anesthetic level	2
	BP +/- 20-49% of pre-anesthetic level	1
	BP +/- 50% of pre-anesthetic level	0
Consciousness	Fully awake	2
	Arousable on calling	1
	Not responding	0
Oxygen saturation	Able to maintain O_2 saturation >92% on room air	2
	Needs oxygen to maintain O ₂ saturation >90%	1
	O ₂ saturation <90% even with supplemental oxygen	0

References

- 1. Bhananker SM et al. Anesthesia-related cardiac arrest in children: update from the Pediatric Perioperative Cardiac Arrest Registry. Anesth Analg. 2007;105(2):344-50.
- Deutsch N, Ohlinger S, Motoyama EK, et al. Induction, Maintenance, and Recovery. In: Davis P, Cladis FP, eds. Smith's Anesthesia for Infants and Children. 9th ed. Philadelphia, PA: Elsvier, Inc; 2017:370-398.
- 3. Aldrete JA. The post-anesthesia recovery score revisited. J Clin Anesth. 1995;7(1):89-91.
- Ambulatory and Non-operating Room Anesthesia. In: Butterworth IV JF, Mackey DC, Wasnick JD, eds. Morgan & Mikhail's Clinical Anesthesiology. 6th ed. New York, NY: McGraw-Hill; 2018:943-958.

Answer: C

Created: 4/26/20; Last revised: 5/29/20